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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,944	04/14/2004	Steven J. Visco	PLUSP040	7287
22434	7590	03/12/2007		
BEYER WEAVER LLP P.O. BOX 70250 OAKLAND, CA 94612-0250			EXAMINER DOVE, TRACY MAE	
			ART UNIT	PAPER NUMBER
			1745	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/824,944

Applicant(s)

VISCO ET AL.

Examiner

Tracy Dove

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-84 and 86-96 is/are pending in the application.
- 4a) Of the above claim(s) 32,36-40,46,47,51-54,57,59-74,79,80,86-93 and 96 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21,22,30,31,33-35,41-45,48-50,55,56,58,75-78,94 and 95 is/are rejected.
- 7) ☒ Claim(s) 23-29 and 81-84 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/2/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to the communication filed on 12/7/06. Applicant's arguments have been considered, but are moot in view of the new grounds of rejection. Elected battery species 1 is directed toward allowable subject matter. This Action is Non-Final.

Election/Restrictions

Applicant's election without traverse of Group II, claims 21-84 and 86-96, in the reply filed on 6/20/06 is acknowledged. During a telephone interview of 8/15/06, Applicant elected lithium as the anode material, the glass ceramic of claim 32 as the impervious ionically conductive layer and sea water/nickel collector as the cathode structure. Applicant stated claim 21-35, 41-43, 48-51, 55, 56, 75-78, 81-84, 94 and 95 read on the elected species. The telephone interview summary was mailed on 8/17/06. This species is directed toward allowable subject matter.

For search purposes, the Examiner elects lithium as the anode material, a glass composition of 83 mol% V_2O_5 -10 mol% P_2O_5 -6.5 mol% Li_2O as the impervious ionically conductive layer and an air/LiOH/nickel as the cathode structure as the second elected species. Claims 21-31, 33-35, 41-45, 48-50, 55, 56, 58, 75-78, 81-84, 94 and 95 read upon the elected species. Therefore, claims 32, 36-40, 46, 47, 51-54, 57, 59-74, 79, 80, 86-93 and 96 are withdrawn from consideration.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 10/2/06 has been considered by the examiner.

Claims Analysis

The preamble of the claim 21 recites "A battery cell, comprising", which is not given patentable weight. If the body of a claim fully and intrinsically sets forth all of the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction. (MPEP 2111.02).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 21-31, 33-35, 41-45, 48-50, 55, 56, 58, 75-78, 81-84, 94 and 95 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 23-25 of copending Application No. 11/245,472 (US2006/0078790). Although the conflicting claims are not identical, they are not patentably distinct from each other because both

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require a battery cell comprising an active metal anode, a cathode structure and a protective architecture on a surface of the anode.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 21, 22, 30, 31, 33-35, 41-45, 48-50, 55, 56, 58, 75-78, 94 and 95 are rejected under 35 U.S.C. 102(b) as being anticipated by McRae et al., US 3,607,417.

McRae teaches a battery cell having a lithium metal anode 22, a nonaqueous electrolyte 23 adjacent the anode 22 (active material ion conducting separator layer), a cathode structure 26/27 and a cation permeable/water impermeable membrane 25 (impervious ionically conductive layer) adjacent the cathode structure 26/27. The nonaqueous electrolyte 23 may be, for example, dimethyl formamide or ethylene carbonate containing lithium tetrafluoroborate, lithium hexafluorophosphate or the like (5:44-62). See Figure 3. Claim 9 recites a glass composition of 83 mol% V₂O₅-10 mol% P₂O₅-6.5 mol% Li₂O as the impermeable membrane 25 (impervious ionically conductive layer). The cathode structure includes LiOH 26 and an air electrode 27. The air electrode may be catalytic lithiated nickel oxide supported on nickel (4:72-5:5). The chemical reaction of the battery cell are shown in column 5, lines 10-14. As shown, the cathode reaction includes water (aqueous). The battery cell may be a primary or secondary battery (1:1-2). The cell may have a tubular or rectangular form (3:22-28). Thus the claims are anticipated.

Allowable Subject Matter

Claims 23-29 and 81-84 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to the elected invention/species have been considered but are moot in view of the new ground(s) of rejection.

Applicant requested acknowledgement the claim 52 falls within elected Group II. Examiner has acknowledged claim 52 falls within elected Group II. See "election/restrictions" section of previous Office Action. Note claim 52 is still withdrawn because the claim does not read upon the elected species.

Regarding the double patenting rejection over Nimon, this rejection will only be removed if it remains the only rejection in the application and Nimon has not been indicated as allowed.

Conclusion

Note prior art patent publications US2004/0197641 and US2005/0100793 are not available as prior art under 35 U.S.C. 103(a) because they are commonly assigned.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracy Dove whose telephone number is 571-272-1285. The examiner can normally be reached on Monday-Thursday (9:00-7:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

March 5, 2007



TRACY DOVE
PRIMARY EXAMINER